Appendix E
Standard Operating Procedures

SOP for Decontamination: Handling and Disposal of Investigation-Derived Waste

Purpose

The purpose of this technical practice is to provide general guidelines for the handling and disposal of investigation-derived waste (IDW).

Scope and Applicability

This technical practice covers the handling and disposal of IDW, which are the waste materials generated during a field investigation. Some of the waste materials may be hazardous. All wastes must be disposed of in accordance with local, state, and federal regulations.

Materials that may become IDW requiring proper treatment, storage,and disposal include:

- Personal protective equipment, such as disposable coveralls, gloves, booties, and respirator canisters
- Disposable equipment, such plastic ground and equipment covers, aluminum foil, Teflon tubing, broken or unused sample containers, sample container boxes, and tape
- Soil cuttings from drilling or hand auguring
- Drilling mud or water used for water rotary drilling
- Groundwater obtained through well development or well purging
- Decontamination fluids such as spent solvent and washwater

Operating Practice Details

Procedures/Guidelines

The drilling Subcontractor shall provide an adequate number of new U.S. Department of Transportation (DOT)-approved, 1-yard flexible containers (interwoven polypropylene with polyethylene liner) to containerize all drill cuttings and disposable material generated during sampling and equipment decontamination. The drilling Subcontractor shall provide an adequate number of new DOT-approved 55-gallon drums to containerize all development water and decontamination liquids. All disposable PPE, drill cuttings, development water, decontamination liquids, and other wastes produced from the drilling, monitoring well installation, and monitoring well development operations shall be placed by the Subcontractor in the appropriate containers. The drilling Subcontractor shall be responsible for containerization, transportation, and off-base disposal of all surface debris, specifically concrete and asphalt, generated during drilling and well pad installation. No on-

base disposal of surface debris will be permitted. The drilling Subcontractor will be responsible for hauling all waste containers to a staging area on Kelly AFB at the end of each working day.

CH2M HILL will manage the sampling, characterization, and disposal of the investigation derived materials from the investigations. The existing staging area at Main Kelly will be used for temporary storage of the PPE and soil cuttings. All decontamination and development/purge water from the wells will be disposed in the existing WWTP at the EPCD at Main Kelly. Soil cuttings will be characterized and disposed at a permitted facility if found to be non-hazardous. If cuttings are determined to be hazardous, the classification data will be delivered to AFCEE/KAFB for disposal of the wastes by the base.

All purge, development, and other process waters generated as a direct or indirect result of investigation activities shall be disposed of at the Environmental Process Control Facility on Kelly AFB. The only exception to this policy shall be in the event the EPCF is off line, or the waters are unacceptable for discharge to the EPCF. Prior to disposing of waters at the EPCF, CH2M HILL shall coordinate and schedule the discharge(s) with the EPCF manager (Bill Hall and OPTECH). CH2M HILL shall record and report all discharges to the COR as a component of monthly status report. At a minimum, CH2M HILL shall report the date, quantity, origination site, and primary contaminants of interest at the site.

All subsurface IDW soils shall be containerized and staged at Lot 513. Analytical data gathered to support environmental investigations shall be provided to the COR (Joe Ebert). The samples shall be cross-referenced by container. After soils are staged, composite soil samples will be collected for disposal characterization purposes. Soil samples will be analyzed for VOCs (8260), SVOCs/(8270), 13 metals, (cyanide (9010/9012) and TPH by 418.1.

Construction debris disposal is the responsibility of the drilling subcontractor and shall not be comingled with IDW. For the purpose of this Work Plan, construction debris is defined as all non-affected residues of drilling Subcontractor operations. Additionally, surface soils such as those excavated for the purpose of installing monitoring well pads shall be treated as clean soil and distributed at the site, unless onsite distribution is impractical.

Water level indicators used to measure groundwater depths will be decontaminated with a pesticide-grade methanol wipe, followed by a two-stage deionized water wipe, and then allowed to air dry. Solvent-contaminated paper towels will be placed in separate containers supplied

SOP for Decontaminating Field Equipment

Purpose

The purpose of this technical practice is to provide general guidelines for decontamination of soil investigation equipment, sampling equipment, and monitoring equipment used in potentially contaminated environments.

Scope and Applicability

This technical practice provides a general description of decontamination procedures. For specific deviations from this technical practice, see the specific field sampling plans.

Technical Practice Details

Equipment/Materials

This technical practice provides a general description of decontamination procedures. For specific deviations from this technical practice, see the specific field sampling plans.

Procedures/Guidelines

Drill Rig and Tools

Drilling rigs and drilling equipment will be steam cleaned in designated cleaning and decontamination area before entering any drill site. All downhole drilling, sampling, and associated equipment will be cleaned and decontaminated by the following procedure:

1. All downhole soil auguring, drilling, and sampling equipment will be sandblasted if paint or a buildup of rust is present and cannot be removed by high pressure steam cleaning.
2. Steam clean soil auguring, drilling, and sampling equipment using a cleaner capable of generating steam at a pressure of at least 2,500 pounds per square inch (psi). All equipment that is hollow or that has holes to transmit water or drilling fluids must be cleaned inside and outside.
3. Rinse tools with potable tap water.
4. Air dry.

All cleaning and decontamination will be conducted over a decontamination pad or over buckets. If sampling or drilling tools are decontaminated in buckets, water will be disposed of in the same manner as the decontamination pad water. A catch basin will be used or constructed to contain all runoff until it can be placed into drums. Drilling equipment (drill pipe, auger, and tools) will be cleaned above the plastic sheeting on saw horses or other appropriate means.

After cleaning and decontaminating, all drilling equipment and sampling tools will remain off the ground on metal racks, metal sawhorses, or plastic sheeting until ready for use.

Drilling equipment, including the drill rig, will be inspected before entering the site to monitor whether there are leaking fluids and whether all gaskets and seals are intact. No oil or grease will be used to lubricate drill stem threads or any other drilling equipment being used over the borehole or in the borehole without prior approval.

Sampling Equipment Decontamination

All soil, surface water, and sediment sampling equipment not associated with the drill rig and drilling will be decontaminated by personnel wearing disposable latex gloves or vinyl gloves using the following procedure:

1. Before entering the potentially contaminated zone, wrap soil contact points in clean plastic.
2. Wash all equipment surfaces that contacted the potentially contaminated soil or water with detergent solution, using a brush as needed to remove particulate matter and surface films.
3. Rinse with potable tap water.
4. Rinse with distilled water and air dry.
5. Wrap the equipment with aluminum foil, if appropriate, to prevent contamination if the equipment is to be stored or transported.
6. Collect all rinsate and dispose of in a DOT approved 55-gallon drum.

Monitoring Equipment Decontamination

1. Wrap soil contact points in plastic to reduce need for subsequent cleaning.
2. Wipe all surfaces that had possible contact with contaminated materials with a paper towel wet with detergent solution,and wipe three times with a towel wet with distilled water.
3. Dispose of all used paper towels in a DOT approved 55-gallon drum.

Sample Container Decontamination

The outer surface of sample containers filled in the field must be decontaminated before being packed for shipment or handled by personnel without dermal hand protection.

1. Wipe container with a paper towel dampened with detergent solution after the containers have been sealed.
2. Then wipe container with a paper towel dampened with potable water.
3. Dispose of all used paper towels in a DOT approved 55-gallon drum.

Personnel Decontamination

The following decontamination procedures will be performed by site personnel after completion of tasks whenever the potential for contamination exists and when leaving the contaminated area.

- Wash boots in detergent solution, then rinse with water. If disposable latex booties are worn over boots in the work area, rinse with TSP solution, remove, and discard.
- Wash outer gloves in detergent solution, rinse, remove, and discard.
- Remove respirator if worn.
- Remove disposable coveralls (e.g., Tyvek™) and discard.

- Remove inner gloves and discard.
- At end of workday, shower entire body, including hair, at work site or at home.
- Sanitize respirator if worn.

Key Checks/Items

- Clean with solutions of detergent and distilled water.
- Drum all contaminated rinsate and materials.
- Decontaminate sample bottles before relinquishing them to anyone.
- Document any deviations from above procedure.

SOP for Field Measurement of Conductivity

Purpose

The purpose of this technical practice is to provide a general guideline for field measurement of specific conductivity and temperature.

Scope and Applicability

This technical practice provides standard field conductivity and temperature techniques for use on groundwater and surface water samples.

Technical Practice Details

Equipment/Materials

- Conductivity meter and electrode
- Distilled water in squirt bottle
- Standard potassium chloride (KCl) solution (0.01 N)

Procedures/Guidelines

Technical

Detection limit = 1 µmho/cm ~ 25° C; range = 0.1 to 100,000 µmho/cm

10,µmhos/cm= 1 mS/m

Calibration Check

Check instrument calibration before initial daily use and at least once every 4 hours or every 5 samples, whichever is less. Check instrument with standard solution. Deviations should be noted in the field logbook.

1. Turn on instrument.
2. Hit mode key until "° C" symbol is flashing to indicate temperature corrected results (conductivity units should be Pathos).
3. Read standard and note results.
4. Rinse probe with deionized water.
5. Run sample and record results
6. Rinse with deionized water when done.

Attachments

Conductivity meter calibration sheet

Key Checks/Items

- Check battery
- Check calibration
- Clean probe with deionized water when done
- When reading results, note sensitivity settings.

Preventative Maintenance

- Refer to operations manual for recommended maintenance.
- Check batteries. Have a replacement set on hand.

SOP for Field Measurement of pH

Purpose

The purpose of this technical practice is to provide a general guideline for field measurement of pH in water samples.

Scope and Applicability

This technical practice provides information on equipment, materials, and procedures for measurement of pH on water samples.

Technical Practice Details

Equipment/Materials

- pH buffer solution for pH 4, 7, and 10
- Deionized water in squirt bottle
- pH meter
- Combination electrodes
- Beakers
- Solution of hydrochloric acid (HCl)
- Glassware that has been washed with soap and water, rinsed twice with hot water, and rinsed twice with deionized water

Procedures/Guidelines

Calibration Check

Calibrate unit before initial daily use and at least once every 4 hours or every 5 samples, whichever is less. Calibrate with at least two solutions. Clean probe according to manufacturer's recommendations. Run duplicate samples once every 10 samples or every 4 hours.

1. Note source of pH buffers, date of preparation, expiration date, and prepared by whom.
2. Note pH instrument number, model number, and manufacturer.
3. Rinse electrode with deionized water.
4. Place electrode in pH 7 buffer solution.
5. Allow meter to stabilize and then press the "yes" key to accept reading.

6. Rinse electrode with deionized water and place it in a pH 4 or pH 10 buffer solution.
7. Allow meter to stabilize again and then press the "yes" key to accept reading. Record the slope reading (for example, "SLP 98.5").
8. Rinse electrode with deionized water, and place in pH 7 buffer. If meter reading is not 7.0, repeat sequence.

Procedure

1. Before going into the field:
   a. Check batteries.
   b. Do a quick calibration at pH 7 and 4 to check electrode.
   c. Obtain fresh standard solutions.
2. Calibrate meter using calibration procedure.
3. Pour sample into a clean beaker.
4. Rinse electrode with deionized water between samples.
5. Immerse electrode in solution. Record pH reading.
6. Recheck calibration with pH 7 buffer solution after every 5 samples.

General

1. When calibrating meter, use pH buffers 4 and 7 for samples with pH < 8, and buffers 7 and 10 for samples with pH > 8. If meter will not read pH 4 or 10, something may be wrong with electrode.
2. Measurement of pH is temperature dependent. Therefore, temperatures of buffers and samples should be within about 2°C. For refrigerated or cool samples, use refrigerated buffers to calibrate pH meter.
   Weak organic and inorganic salts, oil, and grease interfere with pH measurements. If oil or grease is visible, note it on the data sheet. Clean electrode with soap and water, and rinse with a
3. 10 percent solution of HC1. Then recalibrate meter.
4. Following field measurements:
   a. Report any problems.
   b. Compare with previous data.
   c. Clean all dirt from the meter and from inside the case.
   d. Store electrode in pH 4 buffer solution.
5. Accuracy and precision are dependent on the instrument used. Refer to manufacturer's manual. Expected accuracy and precision are + 0.1 pH unit.

Attachments

pH meter calibration sheet

Key Checks/Items

- Check batteries
- Calibrate

Preventative Maintenance

- Refer to operations manual for recommended maintenance.
- Check batteries. Have a replacement set on hand.

SOP for Field Measurement of Oxidation Reduction Potential

Purpose

The purpose of this technical practice is to provide a general guideline for field measurement of oxidation reduction potential.

Scope and Applicability

This technical practice provides standard field oxidation reduction potential determination techniques for use on surface water and groundwater samples. Please refer to ASTM D 1498-93 for futher calibration requirements.

Technical Practice Details

Equipment/Materials

- Oxidation reduction potential meter (usually a pH meter with millivolt readout)
- Oxidation reduction potential probe
- Zobell calibration solution

Procedures/Guidelines

Calibration Check

1. Calibrate unit before initial daily use and at least once every 4 hours. Run duplicate samples once every 10 samples or every 4 hours.
2. Rinse probe with deionized water.
3. Note standard information (date opened, lot number, expiration date).
4. Place clean, dry probe in Zobell solution.
5. Note standard reading in logbook along with expected reading and time of measurement.
6. Rinse probe with deionized water.

Procedure

1. Before going into the field:
   a. Check batteries.
   b. Perform calibration.
2. Calibrate meter using calibration procedure.
3. Pour sample into a clean beaker.
4. Rinse probe with deionized water between samples.

5. Immerse probe in sample. Record oxygen reduction potential reading.

General

1. Following field measurements:
   a. Report any problems.
   b. Compare with previous data.
   c. Clean all dirt from the meter and from inside the case.
2. Accuracy and precision are dependent on the instrument used. Refer to manufacturer's manual.

Key Checks/Items

- Check batteries
- Calibrate

SOP for Field Measurement of Dissolved Oxygen

Purpose

The purpose of this technical practice is to provide a general guideline for field measurement of dissolved oxygen in water samples.

Scope and Applicability

This technical practice provides information on equipment, materials, and procedures used for standard field dissolved oxygen determination in water samples.

Technical Practice Details

Equipment/Materials

- Dissolved oxygen meter
- Dissolved oxygen probe
- Potassium chloride (KCl) probe refill solution
- Spare probe membranes

Procedures/Guidelines

Calibration Check

1. Calibrate unit before initial daily use and at least once every 4 hours. Run duplicate samples once every 10 samples or every 4 hours.
2. Ensure that there is a damp towel or sponge in the bottom of the calibration container.
3. Place the probe into the calibration container so that the membrane is not touching the container or wet sponge/towel.
4. Set the meter to read temperature.
5. Adjust temperature correction setting.
6. Set meter to air calibration mode.
7. Adjust meter to correct reading. Record calibration information in logbook.
8. Set meter to reading mode.
9. Rinse electrode with deionized water before use.

Procedure

1. Before going into the field:
    a. Check batteries.

   b. Do a calibration.
   c. Check probe membrane.
2. Calibrate meter using calibration procedure.
3. Pour sample into a clean beaker.
4. Rinse probe with deionized water between samples.
5. Immerse probe in sample. Record dissolved oxygen reading.

General

1. Measurement of dissolved oxygen is temperature dependent. Therefore, temperature correction must be accurate when calibrating.
2. Following field measurements:
   a. Report any problems.
   b. Compare with previous data.
   c. Clean all dirt off of the meter and from inside the case.
   d. Store probe in calibration container with wet towel/sponge.
3. Accuracy and precision are dependent on the instrument used. Refer to manufacturer's manual. Expected accuracy and precision are ~ 0.1 mg/L.

Key Checks/Items

- Check batteries.
- Calibrate.

SOP for Field Sampling of Volatile Organic Compounds

Purpose

The purpose of this technical practice is to provide a general guideline for sampling volatile organic compounds (VOC) in water.

Scope and Applicability

This technical practice provides guidance on equipment, materials, and procedures for collecting representative VOC samples from water. Site-specific details are discussed in the unit-specific field sampling plans.

Technical Practice Details

Equipment/Materials

- Sample vials, clean latex or surgical gloves, pH meter
- Hydrochloric acid (HCl) for preservation
- pH meter or pH indicating paper
- Surgical or latex gloves

Procedures/Guidelines

Calibration Check

1. Sample VOCs before sampling other analyte groups.
2. When sampling for VOCs, evaluate the area around each sampling point for possible sources of air contamination by VOCs. Products that may give off VOCs or could possibly contaminate a sample include perfumes and cosmetics, skin applied pharmaceuticals, automotive products (e.g., gasoline, starting fluid, windshield deicers, carburetor cleaners) and household paint products (e.g., paint strippers, thinners, turpentine).
3. This step is required if vials do not contain HCl directly from the laboratory. To estimate the amount of hydrochloric acid needed to properly preserve each sample at each location, fill a 40-mL test vial with the sample, add one drop of hydrochloric acid, mix gently, and check pH. Repeat cycle (if necessary) until a pH of 2 or less is achieved, counting the number of drops of required. DISCARD TEST VIAL, and add an equal number of drops of hydrochloric acid to each sample vial.
4. Keep caps off sample vials for as short a time as possible.
5. Wear clean latex or surgical gloves.

6. Fill sample vial immediately, allowing water stream to strike inner wall of vial to minimize formation of air bubbles. **Do not rinse sample vials before filling.**
7. Fill sample vial, with a minimum of turbulence, until the water forms a positive meniscus at the vial brim.
8. Replace cap by gently setting it on the water meniscus. Tighten firmly, but **do not overtighten.**
9. Invert vial and tap it lightly. If you see air bubbles in sample, do not add more sample. Use another vial to collect another sample. Repeat if necessary until a proper sample is obtained.
10. Label each vial with the sample site, station, date, time, analysis, preservative, and sample collectors' names.

Key Checks/Items

- Check for possible sources of contamination
- Check pH.
- Fill slowly, with as little turbulence as possible
- Check for air bubbles.

SOP for Measuring Water Level during Groundwater Sampling

Purpose

The purpose of this technical practice is to provide general guideline for measuring water levels in monitoring wells and piezometers.

Scope and Applicability

This technical practice provides guidance on water level measurements.

Technical Practice Details

Equipment/Materials

- Water level indicator
- Deionized water
- TSP solution
- Squirt bottles
- Paper towels

Procedures/Guidelines

1. Vent well caps and allow water levels to reach static levels for at least 15 minutes.
2. Decontaminate water level indicator, first with TSP solution, then with deionized water.
3. Test battery on water level indicator.
4. Measure depth to water, preferably using a mark or notch on the north side of the well casing to indicate where readings should be taken.
5. If total well depth information is not available and the well is required for sampling, measure the total depth of the well.
6. Decontaminate the water level indicator with TSP, then with deionized water.
7. Record depth to water and total well depth if necessary.

Key Checks/Items

- Vent wells before measurement.
- Use the same location on the well casing to ensure comparability of readings.
- Decontaminate water level indicator prior to each use with TSP and then with deionized water.

SOP for Field Filtering Water Samples

Purpose

The purpose of this technical practice is to provide general guidelines for field filtering of water samples for dissolved metals analysis.

Scope and Applicability

This technical practice provides guidelines on equipment, materials, and procedures to field filter water samples for dissolved metals analysis.

Technical Practice Details

Equipment/Materials

- Deionized water
- Geopump
- C-Flex tubing
- Teflon tubing
- 0.45-µm in-line filter cartridge

Procedures/Guidelines

Filtering Samples at Time of Collection

1. Collect sample in bailer (if applicable), and cut small hole near the top of bailer.
2. Insert 4- to 5-foot length of Teflon tubing
3. Insert other end of Teflon tubing into one end of C-Flex tubing (already installed in the pumphead).
4. Insert filter capsule into other end of C-Flex tubing.
5. Filter sample into a precleaned bottle preserved with nitric acid.

Filtering Samples after All Samples Are Collected

1. Collect samples in precleaned containers that do not contain preservative.
2. Insert short length of Teflon tubing.
3. Insert other end of Teflon tubing into one end of C-Flex tubing (already installed in the pumphead).
4. Filter sample into precleaned bottle preserved with nitric acid.
5. Insert filter capsule into other end of the C-Flex tubing.

Key Checks/Items

- Use precleaned containers.

Disposable En Core™ Sampler

En Novative Technologies, Inc.
1241 Bellevue Street
Green Bay, WI 54302
Telephone: 920-465-3960 • Toll Free: 1-888-411-0757
Fax: 920-465-3963

SAMPLING PROCEDURES

NOTE:

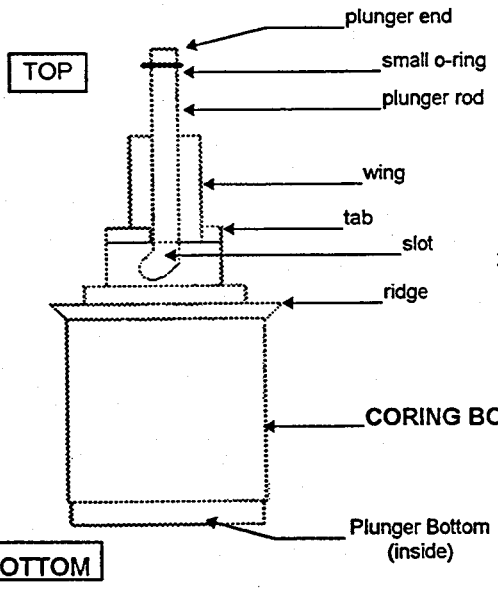
1. En Core Sampler is a SINGLE USE device. It cannot be cleaned and/or reused.

2. En Core Sampler is designed to store soil. Do not use En Core Sampler to store solvent or free product!

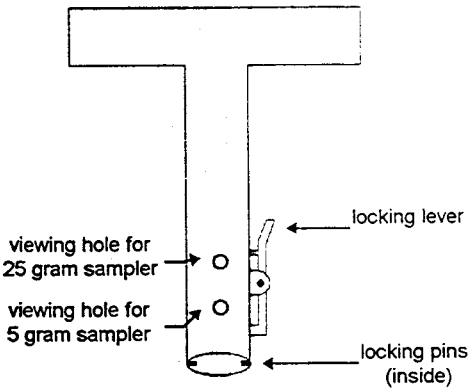
3. En Core Sampler must be used with En Core™ T-Handle and/or En Core™ Extrusion Tool exclusively. (These items are sold separately.)

USING THE En Core™ T-HANDLE

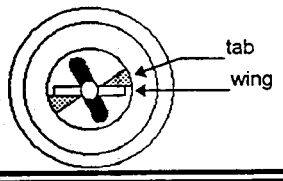
En Core Sampler



En Core T-Handle

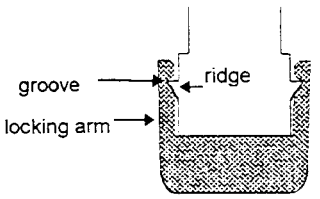


Locked Plunger



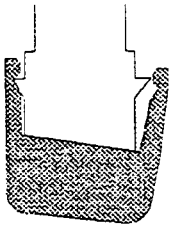
Sampler Correctly Capped

(Locking Arm Grooves Seated Over Coring Body Ridge)



Sampler Incorrectly Capped

(Cap Appears Crooked; Locking Arm Grooves Not Fully Seated Over Coring Body Ridge)



BEFORE TAKING SAMPLE:

1. Hold **coring body** and push **plunger rod** down until **small o-ring** rests against **tabs**. This will assure that plunger moves freely.

2. Depress **locking lever** on En Core T-Handle. Place coring body, **plunger end** first, into open end of T-Handle, *aligning the (2) slots on the coring body with the (2) locking pins in the T-Handle*. Twist coring body clockwise to lock pins in slots. Check to ensure Sampler is locked in place. Sampler is ready for use.

TAKING SAMPLE:

3. Turn T-Handle with T-up and coring body down. This positions plunger bottom flush with bottom of coring body (ensure that plunger bottom is in position). Using T-Handle, push Sampler into soil until coring body is completely full. When full, small o-ring will be centered in T-Handle **viewing hole**. Remove Sampler from soil. Wipe excess soil from coring body exterior.

4. Cap coring body while it is still on T-handle. Push and twist **cap** over bottom until **grooves** on **locking arms** seat over **ridge** on coring body. **CAP MUST BE SEATED TO SEAL SAMPLER** (see diagram).

PREPARING SAMPLER FOR SHIPMENT:

5. Remove the capped Sampler by depressing locking lever on T-Handle while twisting and pulling Sampler from T-Handle.

6. Lock plunger by rotating extended plunger rod fully counter-clockwise until **wings** rest firmly against tabs (see plunger diagram).

7. Attach completed circular label (from En Core Sampler bag) to cap on coring body.

8. Return full En Core Sampler to zipper bag. Seal bag and put on ice.

Disposable En Core™ Sampler

EXTRUSION PROCEDURES

USING THE En Core™ EXTRUSION TOOL

CAUTION! Always use the Extrusion Tool to extrude soil from the En Core Sampler. If the Extrusion Tool is not used, the Sampler may fragment, causing injury.

1. Use a pliers to break locking arms on cap of En Core Sampler. Do not remove cap at this time. **(CAUTION: Broken edges will be sharp.)**
2. To attach En Core Sampler to En Core Extrusion Tool: Depress locking lever on Extrusion Tool and place Sampler, plunger end first, into open end of Extrusion Tool, *aligning slots on coring body with pins in Extrusion Tool.* Turn coring body clockwise until it locks into place. Release locking lever.
3. Rotate and gently push Extrusion Tool plunger knob clockwise until plunger slides over wings of coring body. (When properly positioned plunger will not rotate further.)
4. To release soil core, remove cap from Sampler and push down on plunger knob of En Core Extrusion Tool. Remove and properly dispose of En Core Sampler.

Warranty and Disclaimers

IMPORTANT: FAILURE TO USE THE EN CORE™ SAMPLER IN COMPLIANCE WITH THE WRITTEN INSTRUCTIONS PROVIDED HEREIN VOIDS ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

PRINCIPLE OF USE. The En Core Sampler Cartridge System is a volumetric sampling system designed to collect, store and deliver a soil sample. The En Core Sampler comes in two sizes for sample volumes of approximately 25 or 5 grams. There are four components: the cartridge with a movable plunger; a cap with two locking arms; a T-handle (purchased separately); and an extrusion handle (purchased separately). NOTE: The En Core Sampler is designed to store soil. It is not designed to store solvent or free product.

The soil is stored in a sealed headspace-free state. The seals are achieved by three special Viton® * o-rings, two located on the plunger and one on the cap of the Sampler. **At no time and under no condition should these o-rings be removed or disturbed.**

QUALITY CONTROL. The cartridge is sealed in an airtight package to prevent contamination prior to use. Due to the stringent quality control requirements associated with the use of this system, the disposable cartridge is designed to be used only once.

WARRANTY. En Novative Technologies, Inc. ("En Novative Technologies") warrants that the En Core Sampler shall perform consistent with the research conducted under En Novative Technologies' approval, within thirty (30) days from the date of delivery, provided that the Customer gives En Novative Technologies prompt notice of any defect or failure to perform and satisfactory proof thereof. THIS WARRANTY DOES NOT APPLY TO THE FOLLOWING, AS SOLELY DETERMINED BY EN NOVATIVE TECHNOLOGIES: (a) Damage caused by accident, abuse, mishandling or dropping; (b) Samplers that have been opened, taken apart or mishandled; (c) Samplers not used in accordance with the directions; and (d) Damages exceeding the cost of the sampler. Seller warrants that all En Core Samplers shall be free from defects in title. THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, WHETHER ORAL, WRITTEN, EXPRESSED, IMPLIED OR STATUTORY, INCLUDING ANY INFORMATION PROVIDED BY SALES REPRESENTATIVES OR IN MARKETING LITERATURE. IMPLIED WARRANTIES OF FITNESS AND MERCHANTABILITY SHALL NOT APPLY. En Novative Technologies' warranty obligations and Customer's remedies, except as to title, are solely and exclusively as stated herein.

LIMITATION OF LIABILITY. IN NO EVENT SHALL EN NOVATIVE TECHNOLOGIES BE LIABLE FOR ANTICIPATED PROFITS, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF REVENUE, DOWN TIME, REMEDIATION ACTIVITIES, REMOBILIZATION OR RESAMPLING, COST OF CAPITAL, SERVICE INTERRUPTION OR FAILURE OF SUPPLY, LIABILITY OF CUSTOMER TO A THIRD PARTY, OR FOR LABOR, OVERHEAD, TRANSPORTATION, SUBSTITUTE SUPPLY SOURCES OR ANY OTHER EXPENSE, DAMAGE OR LOSS, INCLUDING PERSONAL INJURY OR PROPERTY DAMAGE. En Novative Technologies' liability on any claim of any kind shall be replacement of the En Core Sampler or refund of the purchase price. En Novative Technologies shall not be liable for penalties of any description whatsoever. In the event the En Core Sampler will be utilized by Customer on behalf of a third party, such third party shall not occupy the position of a third-party beneficiary of the obligation or warranty provided by En Novative Technologies, and no such third party shall have the right to enforce same. All claims must be brought within one (1) year of shipment, regardless of their nature.

En Novative Technologies, Inc.
1241 Bellevue St.
Green Bay, WI 54302
Telephone: 920-465-3960 • Toll Free: 1-888-411-0757
Fax: 920-465-3963

* Vitron® is a registered trademark of DuPont Dow Elastomers.